



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0070; Directorate Identifier 2011-SW-062-AD]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Bell Helicopter Textron Canada (BHTC) Model 407 helicopters. This proposed AD would require inspecting the aft fuselage upper skin (upper skin) for a crack and the upper left longeron assembly (longeron assembly) for a crack, corrosion, or defect. This AD would require replacing or repairing a part or section, depending on the inspection's outcome. This proposed AD is prompted by reports of cracks in the upper left-hand longeron. The proposed actions are intended to prevent failure of the longeron assembly or the upper skin, which could lead to a structural failure and loss of helicopter control.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- **Fax:** 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the foreign authority’s AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section.

Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l’Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email sharon.y.miles@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD No. CF-2011-42, dated November 9, 2011, to correct an unsafe condition for certain BHTC Model 407 helicopters. TCCA advises that longeron assemblies, part numbers (P/Ns) 206-031-314-037, 206-031-314-177, and 206-031-314-219B, installed on helicopters with 1,200 or more hours air time, are prone to cracking. The TCCA AD requires, based on hours air time since new, visually inspecting the aft fuselage upper skin for cracks and replacing the skin if cracked. The TCCA AD also requires visually inspecting the longeron assembly for cracks and general condition. If the longeron assembly is serviceable, the TCCA AD requires

repeating the inspection of the longeron assembly for cracks and general condition at intervals based on whether external strap doublers are installed. If the longeron assembly is cracked, the TCCA AD requires repairing or replacing it, installing three external strap doublers, and repeating the inspection of the longeron assembly if it was repaired. Installing a new longeron assembly, P/N 206-031-314-237B, and the three external strap doublers constitutes terminating action of the TCCA AD.

FAA's Determination

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to our bilateral agreement with Canada, the TCCA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information

BHTC has issued Alert Service Bulletin 407-11-95, Revision C, dated April 20, 2012 (ASB), to correct an unsafe condition for Model 407 helicopters, serial numbers 53000 through 53900, 53911 through 54061, and 54300, with a flight time of 1200 or more hours, and with a longeron assembly, P/N 206-031-314-037, 206-031-314-177, or 206-031-314-219B. The ASB states that BHTC received reports of longeron assemblies cracking in service. The ASB:

- Specifies a one-time inspection of the aft fuselage top skin and repetitive inspections of the upper left longeron assembly;
- Provides a repair procedure for the longeron assembly;
- Allows for the installation of longeron assembly, P/N 206-031-314-237B, and three external strap doublers as terminating action for the repetitive inspection requirements.

Proposed AD Requirements

We propose the following:

Within 50 hours time-in-service (TIS), or prior to reaching 1,250 hours TIS since new, whichever occurs later, visually inspect the upper skin for a crack using a 10X or higher power magnifying glass.

- If there is a crack in the upper skin, before further flight, remove the skin and inspect the longeron assembly, paying attention to the upper flange, for a crack, corrosion, or other damage using a 10X or higher power magnifying glass. If there are no cracks, corrosion, or other damage in the longeron assembly, before further flight, replace the upper skin with an airworthy upper skin. Repeat the inspection of the longeron assembly at intervals not to exceed 50 hours TIS. If there is a crack, corrosion, or other damage in the longeron assembly, before further flight: Repair the longeron assembly or replace it with an airworthy longeron assembly, P/N 206-031-314-237B, and reinstall the upper skin or replace it with an airworthy upper skin. Install three external strap doublers. Repeat the inspection of the longeron assembly at intervals not to exceed 50 hours TIS.

- If there is no crack in the upper skin, within 10 hours TIS, visually inspect the longeron assembly using a 10X or higher power magnifying glass for a crack, corrosion, or other damage. If there is a crack, corrosion, or other damage in the longeron assembly, before further flight: Repair the longeron assembly or replace it with an airworthy longeron assembly, P/N 206-031-314-237B. Install three external strap doublers. Repeat the inspection of the upper skin and longeron assembly at intervals not to exceed 50 hours TIS. If there are no cracks, corrosion, or other damage in the longeron assembly, repeat the inspection of the upper skin and longeron assembly at intervals not to exceed 50 hours TIS.

- Replacing the longeron assembly with longeron assembly, P/N 206-031-314-237B, and installing three external strap doublers constitutes terminating action for this AD. If there is no crack in the upper skin and no crack, corrosion or other damage in the longeron assembly, you may install three external strap doublers, which will extend the recurring 50 hours TIS inspection interval to 150 hours TIS.

Costs of Compliance

We estimate that this proposed AD would affect 584 helicopters of U.S. Registry and that labor costs average \$85 an hour. Based on these estimates, we estimate the following costs:

A one-time visual inspection of the aft fuselage upper skin would require 1 work-hour and no parts for a total cost of \$85 per helicopter, \$49,640 for the U.S. fleet.

A visual inspection of the longeron and replacing the aft fuselage upper skin would require 3 work hours for a labor cost of \$255 per helicopter. Parts would cost \$723 for parts for total cost of \$978 per helicopter.

Repairing the longeron if needed and installing the doublers would require 16 work hours for a labor cost of \$1,360. Parts would cost \$3,928 for a total cost of \$5,288 per helicopter.

Replacing the longeron with P/N 206-031-314-237B combined with the installation of the three external strap doublers would require 24 work hours for a labor cost of \$2,040. Parts would cost \$13,560 for a total cost of \$15,600 per helicopter.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bell Helicopter Textron Canada: Docket No. FAA-2014-0070; Directorate Identifier 2011-SW-062-AD.

(a) Applicability

This AD applies to Bell Helicopter Textron Canada (BHTC) Model 407 helicopters, with a serial number 53000 through 53900, 53911 through 54061, and 54300, with an upper left longeron assembly (longeron assembly), part number (P/N) 206-031-314-037, 206-031-314-177, or 206-031-314-219B, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in the aft fuselage upper skin or a crack, corrosion, or defect in the longeron assembly. This condition could cause structural failure and consequently, loss of helicopter control.

(c) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 50 hours time-in-service (TIS), or prior to reaching 1,250 hours TIS since new, whichever occurs later, visually inspect the helicopter's aft fuselage upper skin (upper skin) for a crack using a 10X or higher power magnifying glass.

(1) If there is a crack in the upper skin, before further flight, remove the skin and inspect the longeron assembly, paying attention to the upper flange, for a crack, corrosion, or other damage using a 10X or higher power magnifying glass.

(i) If there are no cracks, corrosion, or other damage in the longeron assembly, before further flight, replace the upper skin with an airworthy upper skin. Repeat the inspection of the longeron assembly at intervals not to exceed 50 hours TIS.

(ii) If there is a crack, corrosion, or other damage in the longeron assembly, before further flight:

(A) Repair the longeron assembly or replace it with an airworthy longeron assembly, part number (P/N) 206-031-314-237B, and reinstall the upper skin or replace it with an airworthy upper skin.

(B) Install three external strap doublers in accordance with Part III, paragraphs 5 through 10 of Bell Alert Service Bulletin 407-11-95, Revision C, dated April 20, 2012 (ASB).

(C) Repeat the inspection of the longeron assembly at intervals not to exceed 50 hours TIS.

(2) If there is no crack in the upper skin, within 10 hours TIS, visually inspect the longeron assembly using a 10X or higher power magnifying glass for a crack, corrosion, or other damage.

(i) If there is a crack, corrosion, or other damage in the longeron assembly, before further flight:

(A) Repair the longeron assembly or replace it with an airworthy longeron assembly, P/N 206-031-314-237B.

(B) Install three external strap doublers in accordance with Part III, paragraphs 5 through 10 of the ASB.

(C) Repeat the inspection of the upper skin and longeron assembly at intervals not to exceed 50 hours TIS.

(ii) If there are no cracks, corrosion, or other damage in the longeron assembly, repeat the inspection of the upper skin and longeron assembly at intervals not to exceed 50 hours TIS.

(3) Replacing the longeron assembly with longeron assembly, P/N 206-031-314-237B, and installing three external strap doublers constitutes terminating action for this AD.

(4) If there is no crack in the upper skin and there is no crack, corrosion, or other damage in the longeron assembly, you may install three external strap doublers in accordance with Part III, paragraphs 5 through 10 of the ASB. This option extends the recurring 50 hours TIS inspection interval to 150 hours TIS.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email sharon.y.miles@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in Transport Canada Civil Aviation (TCCA) AD No. CF-2011-42, dated November 9, 2011. You may view the TCCA AD in the AD docket on the Internet at <http://www.regulations.gov>.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 5313, Fuselage Main, Longerons/Stringers.

Issued in Fort Worth, Texas, on January 31, 2014.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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